

**WHAT IS CLAIMED IS:**

- 1 1. A method for loading software on a plurality of  
2 processors in a heterogeneous processor environment,  
3 said method comprising:  
4 retrieving a file using a first processor;  
5 detecting a processor identifier that corresponds to  
6 the file;  
7 determining whether to load the file on a second  
8 processor based upon the processor identifier; and  
9 loading the file onto the second processor in response  
10 to the determination.
- 1 2. The method as described in claim 1 further comprising:  
2 executing a program on the first processor;  
3 loading a runtime loader onto the first processor in  
4 response the execution; and  
5 performing the retrieving, detecting, and the  
6 determining using the runtime loader.
- 1 3. The method as described in claim 1 wherein the file is  
2 an executable file.
- 3 4. The method as described in claim 3 further comprising:  
4 sending a plug-in to the second processor using the  
5 first processor, the plug-in corresponding to the  
6 file;  
7 sending data to the second processor using the first  
8 processor, the data corresponding to the plug-in; and

9       processing the data with the plug-in using the second  
10       processor.

1    5.    The method as described in claim 3 further comprising:  
2       retrieving a plug-in using the second processor, the  
3       plug-in corresponding to the file;  
4       retrieving data using the second processor, the data  
5       corresponding to the plug-in; and  
6       processing the data with the plug-in using the second  
7       processor.

1    6.    The method as described in claim 3 wherein the  
2       executable file is in a file format, and wherein the  
3       file format is selected from the group consisting of  
4       an ELF format, an XCOFF format, and a PECOFF format.

1    7.    The method as described in claim 1 wherein the  
2       processor identifier is a machine type, the  
3       determining further comprising:  
4       extracting the machine type from the file; and  
5       comparing the machine type to a plurality of machine  
6       types.

1    8.    The method as described in claim 1 wherein the file is  
2       part of a combined file, and wherein the processor  
3       type corresponds to one or more section headers from a  
4       plurality of section headers.

1    9.    The method as described in claim 1 wherein the file is  
2       part of a combined file, and wherein the combined file

3 includes one or more processor identifiers that  
4 correspond to the first processor.

1 10. The method as described in claim 1 wherein the first  
2 processor is a processing unit and wherein the second  
3 processor is a synergistic processing unit.

1 11. An information handling system comprising:  
2 a plurality of processors in a heterogeneous processor  
3 environment;

4 a memory accessible by the plurality of processors;

5 one or more nonvolatile storage devices accessible by  
6 the plurality of processors; and

7 a software loading tool for loading software on a  
8 plurality of processors, the software loading tool  
9 comprising software code effective to:

10 retrieve a file using a first processor from  
11 one of the nonvolatile storage devices;

12 detect a processor identifier using the  
13 first processor that corresponds to the  
14 file;

15 determine whether to load the file on a  
16 second processor based upon the processor  
17 identifier; and

18 load the file onto the second processor in  
19 response to the determination.

1 12. The information handling system as described in claim  
2 11 wherein the software code is further effective to:  
3 execute a program on the first processor;

4       load a runtime loader onto the first processor in  
5       response the execution; and  
  
6       perform the retrieving, detecting, and the determining  
7       using the runtime loader located on the first  
8       processor.

1   13.   The information handling system as described in claim  
2       11 wherein the file is an executable file.

3   14.   The information handling system as described in claim  
4       13 wherein the software code is further effective to:  
5       send a plug-in to the second processor using the first  
6       processor, the plug-in corresponding to the file;  
  
7       send data to the second processor using the first  
8       processor, the data corresponding to the plug-in; and  
  
9       process the data with the plug-in using the second  
10      processor.

1   15.   The information handling system as described in claim  
2       13 wherein the software code is further effective to:  
3       retrieve a plug-in using the second processor from one  
4       of the nonvolatile storage devices, the plug-in  
5       corresponding to the file;  
  
6       retrieve data using the second processor from one of  
7       the nonvolatile storage devices, the data  
8       corresponding to the plug-in; and  
  
9       process the data with the plug-in using the second  
10      processor.

1 16. The information handling system as described in claim  
2 13 wherein the executable file is in a file format,  
3 and wherein the file format is selected from the group  
4 consisting of an ELF format, an XCOFF format, and a  
5 PECOFF format.

1 17. The information handling system as described in claim  
2 11 wherein the processor identifier is a machine type,  
3 and wherein the software code is further effective to:  
4 extract the machine type from the file; and  
5 compare the machine type to a plurality of machine  
6 types.

1 18. The information handling system as described in claim  
2 11 wherein the file is part of a combined file, and  
3 wherein the processor type corresponds to one or more  
4 section headers from a plurality of section headers.

1 19. The information handling system as described in claim  
2 11 wherein the file is part of a combined file, and  
3 wherein the combined file includes one or more  
4 processor identifiers that correspond to the first  
5 processor.

1 20. The information handling system as described in claim  
2 11 wherein the first processor is a processing unit  
3 and wherein the second processor is a synergistic  
4 processing unit.

1 21. A computer program product stored on a computer  
2 operable media for loading software on a plurality of

3 processors in a heterogeneous processor environment,  
4 said computer program product comprising:  
5 means for retrieving a file using a first processor;  
6 means for detecting a processor identifier that  
7 corresponds to the file;  
8 means for determining whether to load the file on a  
9 second processor based upon the processor identifier;  
10 and  
11 means for loading the file onto the second processor  
12 in response to the determination.

1 22. The computer program product as described in claim 21  
2 further comprising:  
3 means for executing a program on the first processor;  
4 means for loading a runtime loader onto the first  
5 processor in response the execution; and  
6 means for performing the retrieving, detecting, and  
7 the determining using the runtime loader.

1 23. The computer program product as described in claim 21  
2 wherein the file is an executable file.

3 24. The computer program product as described in claim 23  
4 further comprising:  
5 means for sending a plug-in to the second processor  
6 using the first processor, the plug-in corresponding  
7 to the file;  
8 means for sending data to the second processor using  
9 the first processor, the data corresponding to the  
10 plug-in; and

11 means for processing the data with the plug-in using  
12 the second processor.

1 25. The computer program product as described in claim 23  
2 further comprising:

3 means for retrieving a plug-in using the second  
4 processor, the plug-in corresponding to the file;

5 means for retrieving data using the second processor,  
6 the data corresponding to the plug-in; and

7 means for processing the data with the plug-in using  
8 the second processor.

1 26. The computer program product as described in claim 23  
2 wherein the executable file is in a file format, and  
3 wherein the file format is selected from the group  
4 consisting of an ELF format, an XCOFF format, and a  
5 PECOFF format.

1 27. The computer program product as described in claim 21  
2 wherein the processor identifier is a machine type,  
3 the means for determining further comprising:  
4 means for extracting the machine type from the file;  
5 and  
6 means for comparing the machine type to a plurality of  
7 machine types.

1 28. The computer program product as described in claim 21  
2 wherein the file is part of a combined file, and  
3 wherein the processor type corresponds to one or more  
4 section headers from a plurality of section headers.

1 29. The computer program product as described in claim 21  
2 wherein the file is part of a combined file, and  
3 wherein the combined file includes one or more  
4 processor identifiers that correspond to the first  
5 processor.

1 30. The computer program product as described in claim 21  
2 wherein the first processor is a processing unit and  
3 wherein the second processor is a synergistic  
4 processing unit.